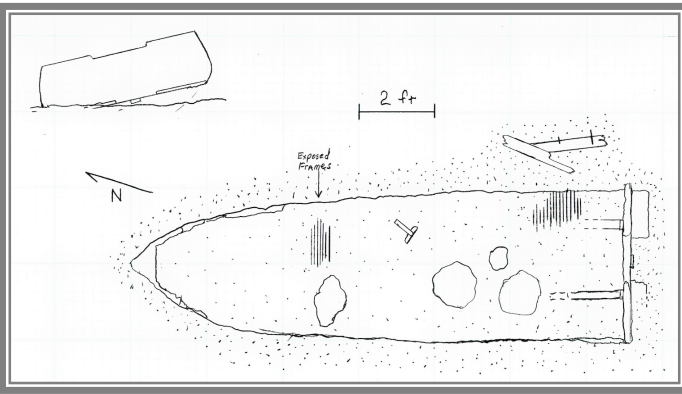
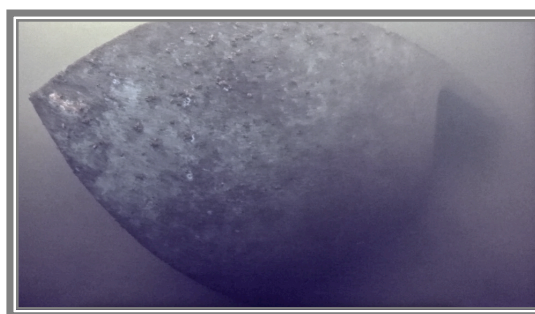
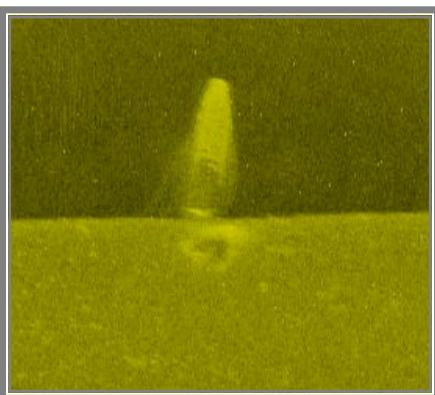


MARITIME HERITAGE MINNESOTA



Ann Merríman
Christopher Olson

Minnesota Suburban Lakes Nautical Archaeology 1 Project: Prior Lake



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Acknowledgments

Maritime Heritage Minnesota (MHM) thanks the People of Minnesota for their support of the Minnesota Historical and Cultural Heritage Grant program of the Arts and Cultural Heritage Fund of the Clean Water, Land and Legacy Amendment; without the MHCH Grant MHM received to conduct this project, the work would not have been undertaken. MHM would also like to acknowledge the Grants Office of the Minnesota Historical Society for their expertise. We thank Bruce Koenen and Amanda Gronhvd of the Office of the State Archaeologist for their efforts. MHM thanks John Nordby of the Department of Natural Resources for his time and patience with our requests for information. Further, we acknowledge the field officers of the DNR for their diligence in preventing the spread of invasive species and for their educational programs. Thanks are also extended to Dr. Mark Benbow for his expertise. MHM could not have completed this project without the in-kind support of volunteer divers Josh Knutson, Kelly Nehowig, Ed Nelson, and Mark Slick. MHM thanks these talented and ethical men for their time and skill. This project could not have been completed in a timely fashion without the consideration of MHM's Chair and Commodore Michael F. Kramer for the on-lake storage of MHM's boat. Lastly, MHM thanks our Board of Trustees Mike, Deb Handschin, and Steve Hack for their continual support.

Maritime Heritage Minnesota Staff, Volunteers, Board of Trustees, & Mascots



“ACHF grants have allowed a small St. Paul-based nonprofit, Maritime Heritage Minnesota (MHM), to re-establish the discipline of underwater archaeology in Minnesota. Without this support, MHM could not have conducted its groundbreaking nautical archeological and maritime historical research.”

~Steve Elliott, Minnesota Historical Society CEO and Director, January 2015

Introduction

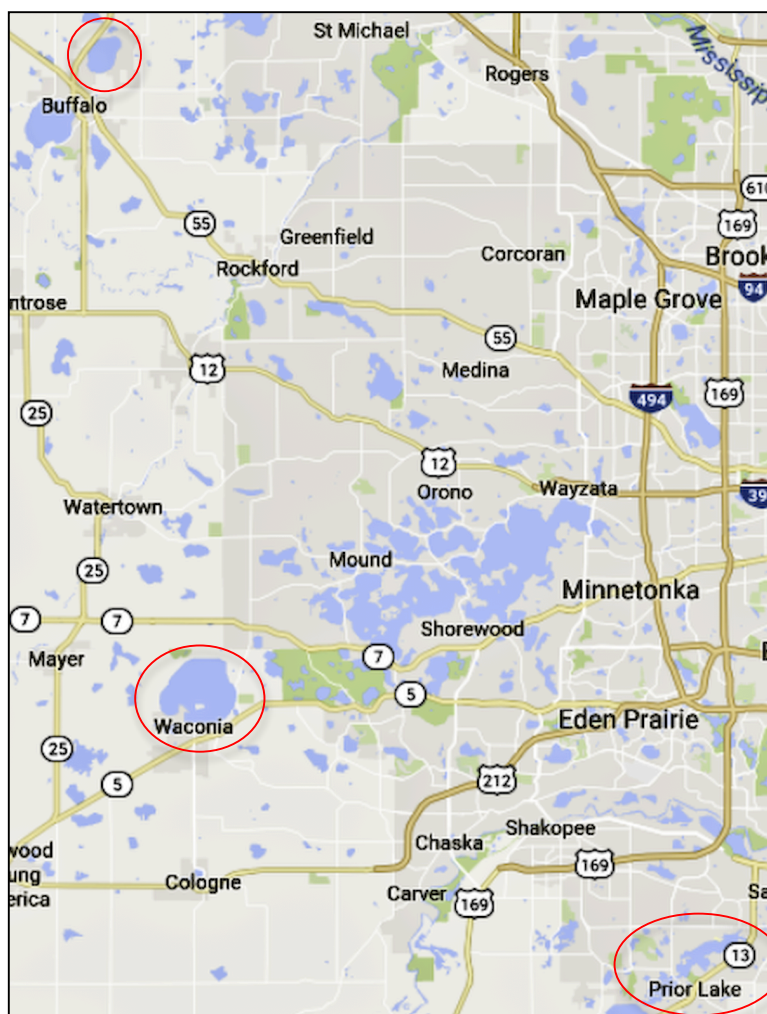
Wrecks and the artifacts associated with them tell a story. Removing or otherwise disturbing artifacts, treating them as commodities that can be sold, obliterates that story. Nautical archaeological and maritime sites are finite, and are significant submerged cultural resources. Nautical, maritime, underwater, maritime terrestrial – Maritime Heritage Minnesota's (MHM) deals with all of these types of sites throughout the State of Minnesota. MHM's Mission is to document, conserve, preserve, and when necessary, excavate these finite cultural resources where the welfare of the artifact is paramount. MHM is concerned with protecting our underwater and maritime sites – our shared Maritime History – for their own benefit in order for all Minnesotans to gain the knowledge that can be obtained through their study. MHM's study of wrecks does not include the removal of artifacts or damaging the sites in any way. MHM does not raise wrecks or 'hunt' for 'treasure'. Submerged archaeological sites in Minnesota are subject to the same State statutes as terrestrial sites: the Minnesota Field Archaeology Act (1963), Minnesota Historic Sites Act (1965), the Minnesota Historic District Act (1971), and the Minnesota Private Cemeteries Act (1976) if human remains are associated with a submerged site. Further, the case of *State v. Bollenbach* (1954) and the Federal Abandoned Shipwrecks Act of 1987 provide additional jurisdictional considerations when determining State oversight and "ownership" of resources defined by law as archaeological sites (Marken, Ollendorf, Nunnally, and Anfinson 1997, 3-4). Therefore, just like terrestrial archaeologists working for the State or with contract firms, underwater archaeologists are required to have the necessary education, appropriate credentials, and hold valid licenses from the Office of the State Archaeologist (OSA).



MHM completed a remote sensing side and down imaging sonar survey of Lake Waconia (3,080 acres) in 2012. In 2016 during the Minnesota Suburban Lakes Survey Project (MSLS), MHM surveyed Upper and Lower Prior Lake (PL, 1,238 acres), and Lake Pulaski (LP, 702 acres).¹ . Prior to MHM's comprehensive surveys, there were no recognized nautical archaeological or maritime sites on bottoms of these suburban lakes.

Preface

During the Minnesota Suburban Lakes Nautical Archaeology 1 Project (MSLNA-1), MHM investigated 5 anomalies in Lake Waconia in Carver County, 10 anomalies in Lake Pulaski in Wright County, and 14 anomalies in Prior Lake in Scott County in order to answer specific questions about their natures. The fieldwork was conducted from mid-August to early September 2017.



The locations of the 3 lakes where MHM investigated 28 Anomalies during the MSLNA-1 Project.

¹During the MSLS Project MHM also surveyed Lake Sylvia (LS, 1,524 acres), Medicine Lake (ML, 886 acres), Lake Johanna (LJ, 213 acres), and Lake Elmo (LE, 206 acres).

Results of the Minnesota Suburban Lakes Nautical Archaeology 1 Project

Research Design

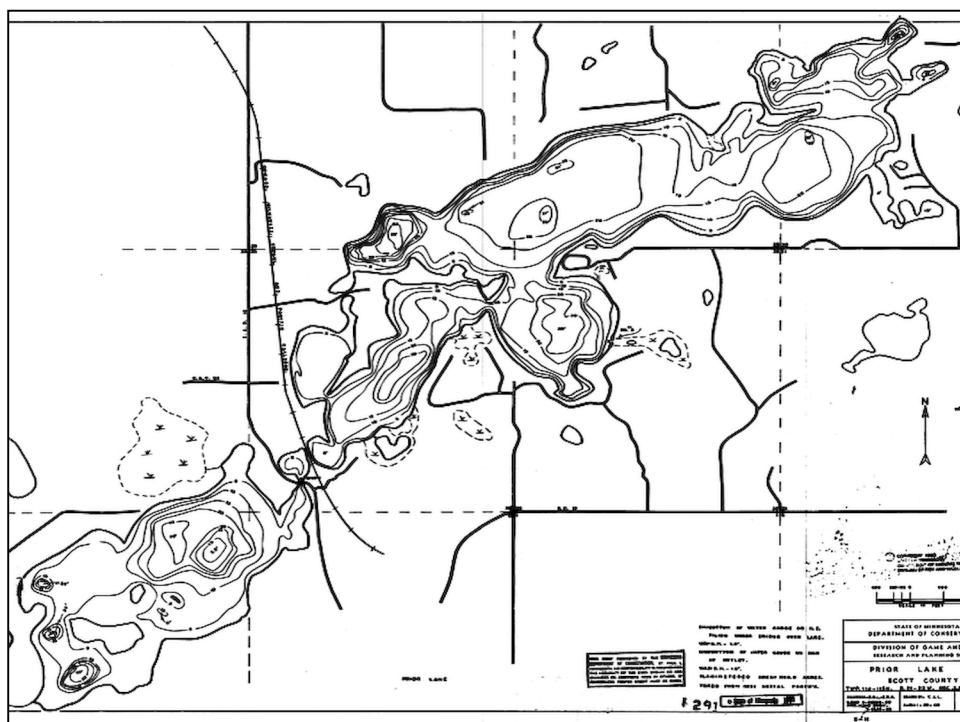
The purpose of the MSLNA-1 Project was to answer questions about and determine the nature of specific unknown anomalies in order to increase the collective maritime archaeological and historical knowledge of Minnesotans. MHM determined which anomalies would be investigated from an analysis of sonar data that suggested they were submerged cultural resources. Each anomaly was assigned a number upon its recognition as a possible site. During the MSLNA-1 Project, MHM examined 5 anomalies in Lake Waconia, 10 anomalies in Lake Pulaski, and 14 anomalies in Prior Lake. Using data accumulated from the fieldwork as a starting point, MHM conducted research to place newly recognized nautical archaeological sites and anomalies into their historical contexts. Minnesota Archaeological Site Forms were filed with the OSA when appropriate.

Methodology

The methodology used to identify and rudimentarily document underwater archaeological anomalies is straightforward. MHM used the GPS coordinates of an anomaly to drop a weighted diver down buoy near the target. The dive boat anchored a short distance away from the buoy and divers geared up for the dive. At any given time, there were between two and four divers underwater. If the buoy anchor weight landed near and sometimes on the anomaly or wreck, no search for the target was conducted. However, for a variety of reasons, a brief search for the target was conducted until it was located or it was determined that the anomaly was a false sonar return. If a cultural or natural resource was located, the divers photographed and recorded video of the site or object, logged its basic measurements, examined any obvious attributes, and measured sediment build-up (if appropriate). After the completion of the MSLNA-1 Project fieldwork in early September 2017, there is now 1 identified wreck on the bottom of Lake Waconia, 7 wrecks and 1 object in Lake Pulaski, and 3 wrecks, 3 maritime sites or objects, and 2 'other' site types on the bottom of Prior Lake. The anomalies were identified through underwater archaeological reconnaissance fieldwork using SCUBA, digital video, measured drawings, and maritime historical research. Of these 11 wrecks, 3 of them now have Minnesota archaeological site numbers.

Prior Lake Project Results

MHM identified 53 anomalies in Upper and Lower Prior Lake in the side and down imaging sonar footage recorded during the MSLNA-1 Project in 2016. In mid-August and early September 2017, MHM returned to Prior Lake and investigated 14 anomalies (A3, A6, A7, A10, A12, A13, A16, A18, A21, A26, A36, A45, A51, A52), identifying 3 wrecks, 3 maritime sites or objects, 2 'other' sites (comprised of 5 anomalies), and 3 false targets.

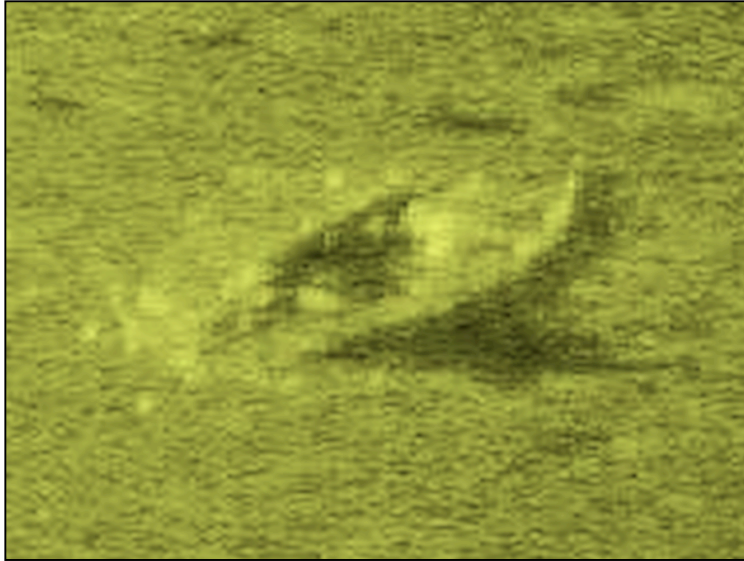


Upper and Lower Prior Lake (State of Minnesota Department of Conservation 1960).

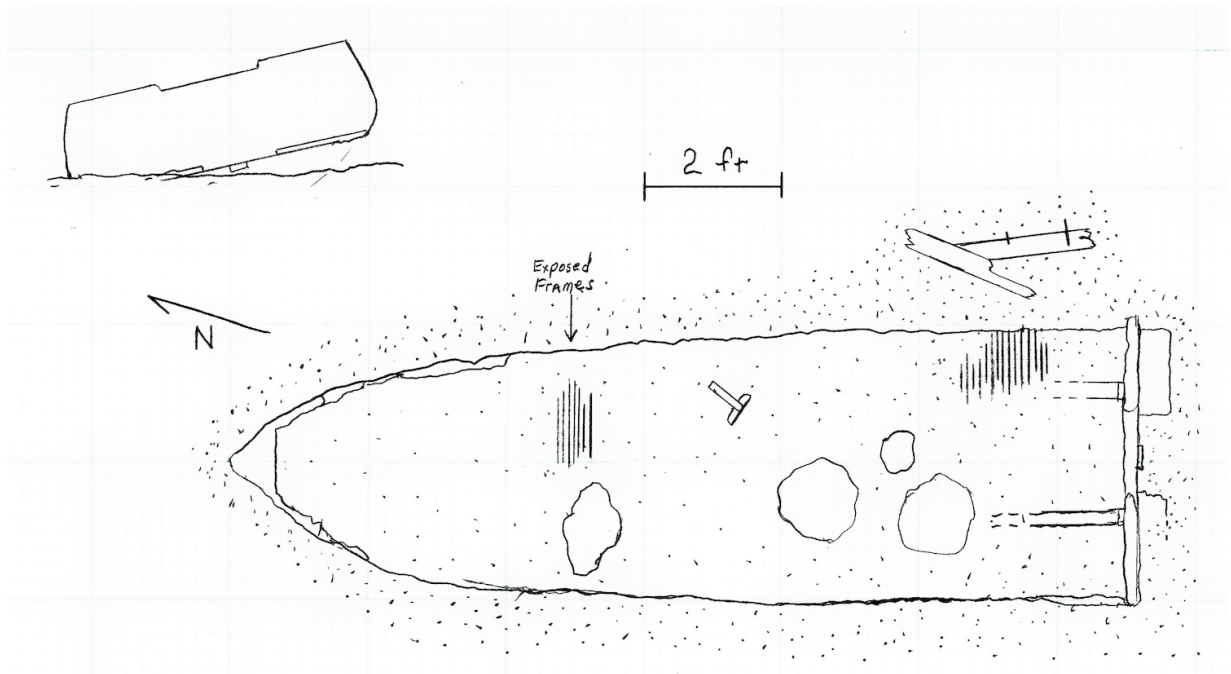
Wooden Outboard Wreck Site, 21-SC-108 (Anomaly 10)

MHM recorded a sonar image of Anomaly 10 in August 2016 during the MSLS-1 Project and identified the Wooden Outboard Wreck in mid-August 2017. The hull of Anomaly 10 is 13.20 feet long and 4.10 feet in the beam. She is carvel-built with an intact transom and bow, but the hull on both port and starboard have not survived past the turn of the bilge. However, a small section of the hull lies in the silt near the starboard quarter. The wreck has a pointed bow with a small foredeck still extant. The stern has considerable tumblehome and the square transom rakes slightly aft with a stern extension comprised of 2 sections, made of latticed wood, with a space between them to accept the outboard motor's lower unit. The extension increases the wreck's length at the water line (LWL), thus allowing the small boat to handle more like a larger vessel without adding too much weight to the hull. Narrow thin frames spaced closely together are extant throughout the hull. Anomaly 10's frames are the thinnest and most closely spaced floors MHM has yet documented in a small watercraft. Fortunately, the wreck is lying off the lake bottom on the starboard side aft, exposing part of the bottom. The keel has a metal strap attached to it for protection. Two stringers run from the stern on the port and starboard sides; how far this extends forward is unknown. A stanchion that is fitted around a small flat plank and attached with slot headed woodscrews is lying loose in the hull; MHM contends this attribute is a stanchion and brace for a bench. Four rocks on lying in the hull were used to weight down the boat when it was intentionally scuttled. The hull is painted white with red trim in places – the wreck may have been part of a fleet of small wooden boats for use at a Prior Lake summer resort. The wreck is held together with slot-headed woodscrews and nails, suggesting she was constructed prior to the mid-1930s, when

Phillips head screws became widely used. The wreck has no registration number, indicating she sank prior to July 1, 1959. Considering the watercraft's condition – she was probably used for several years on the lake, maintained and re-painted several times – MHM suggests a sinking date around 1940. MHM submitted an archaeological site form for the Hydroplane Wreck to the OSA in mid-August 2017 and received her site number, 21-SC-108, at that time.



MHM's sonar image of the Wooden Outboard Wreck (21-SC-108).



A sketch of the Wooden Outboard Wreck (21-SC-108, Christopher Olson).



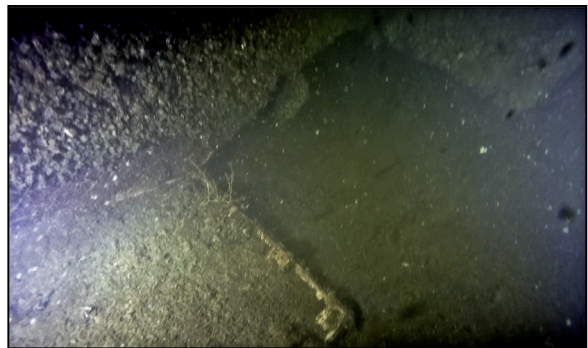
The starboard bow of Anomaly 10 (Mark Slick).



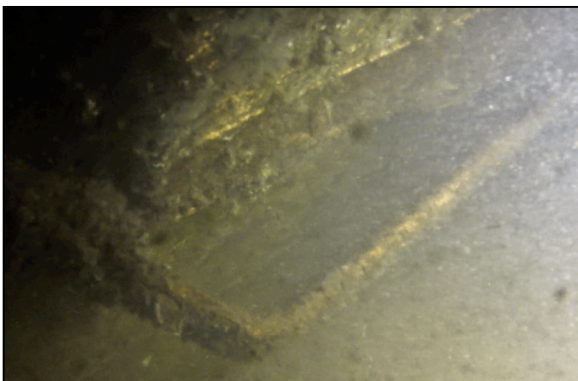
The bow and small foredeck (Mark Slick).



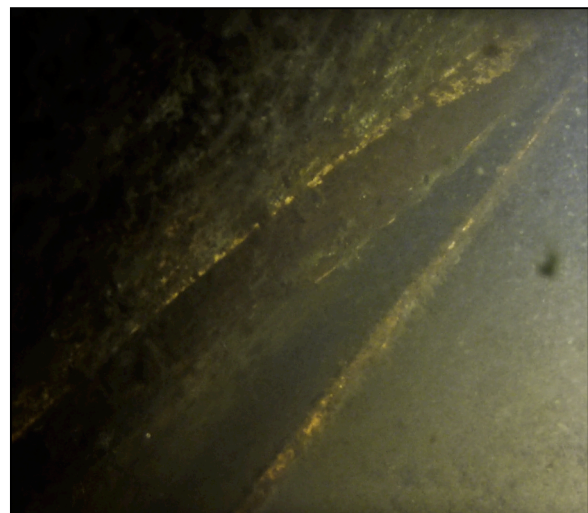
The port side of the transom (Mark Slick).



The stern extension showing the break in the 2 sections with the skeg extending from the wreck's bottom in the center of the photo. Note the lattice design at the end of the port extension (Mark Slick).



The skeg curves around the keel (above) and extends under the hull, meeting up with the keel amidships (right, MHM).





This section of the inner hull bottom shows how closely aligned the floors – frames on the bottom of the wreck – are to each other (Mark Slick).



The loose wooden brace and stanchion lying in the hull; it may be painted yellow (MHM).



Above: The starboard quarter of the wreck – the transom and hull extension is intact but the starboard gunwale and side hull planks are gone (Mark Slick).

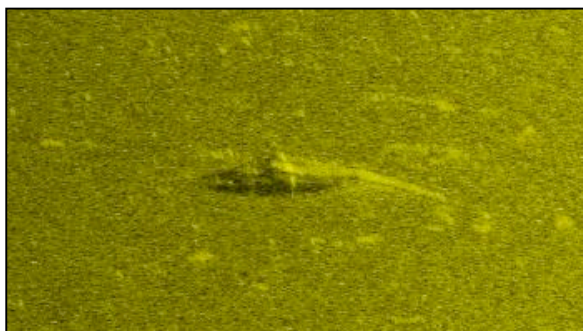
Right: Hull pieces off the starboard quarter of Anomaly 10 (MarkSlick).



Fiberglass Hydroplane Wreck Site, 21-SC-109 (Anomaly 26)

MHM recorded a sonar image of Anomaly 26 in August 2016 during the MSLS-1 Project and identified the Fiberglass Hydroplane Wreck in mid-August 2017. The hull of Anomaly 26 is 10.30 feet long and 4.60 feet in the beam; the wreck lies at an angle with the port side mostly buried from the dashboard to the stern, with the bow raised into the water column. Made of molded fiberglass, Anomaly 26 has a large foredeck with evidence of missing deck fittings, a cockpit, wide gunwale, and a motor well. The aviation-style steering wheel is offset slightly to port and is attached to a plain dashboard. A steering cable attached to the inner part of the dashboard can be seen protruding from it and leading toward the bottom of the wreck. The inner hull is reinforced with sturdy wooden stringers along the bottom of the wreck; there are 3 stringers on the starboard side and it is assumed there are 3 on port. A partial bulwark,

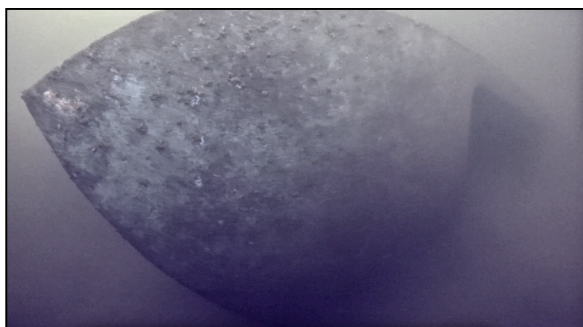
made of wood, provides support at the aft end of the cockpit. The stern is a closed compartment with a wedge formed into it to accept an outboard motor that is not longer extant. A transom that acted as a motor board is formed into the fiberglass. A steering cable roller survives on the starboard quarter. The foredeck, gunwales and stern decking around the motor well are blue, while the lower hull is white, and the inner hull (including the wooden supports) are red. The bottom of the wreck, seen from the bow, has a formed pointed keel that flattens out amidships; a thin wooden false keel is attached to the bottom with bolts. Amidships the hull widens out to form a bustle at the turn of the bilge. Bustles are enlarged sections of the hull on port and starboard that create a chine to increase the hydroplane's buoyancy. Bustles also stabilize the vessel while turning, a desirable attribute since hydroplanes are not designed for turning but straight course drag racing. The wreck has no registration number, indicating she sank prior to July 1, 1959. Considering the watercraft's fiberglass hull, a construction date of post-1946 is reasonable; widespread use of fiberglass in boat manufacturing did not occur until the early 1950s. Rocks were placed in the hull prior to her intentional scuttling; they shifted during the wrecking process and are responsible for Anomaly 26's angle on the lake bottom, with the weight on the port side. MHM submitted an archaeological site form for the Fiberglass Hydroplane Wreck to the OSA in mid-October 2017 and received her number, 21-SC-109 at that time.



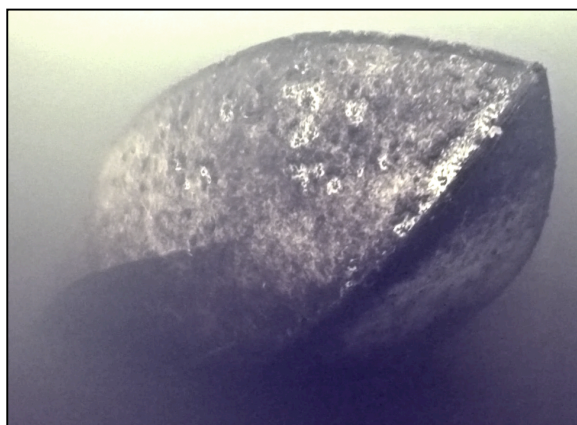
MHM's sonar image of the Fiberglass Hydroplane Wreck.



Anomaly 26's aviation-style steering wheel, the type commonly used while drag racing (Mark Slick).



Above: The foredeck (Mark Slick).
Right: The bow and forward section of the wreck, with the starboard bustle evident (Mark Slick).

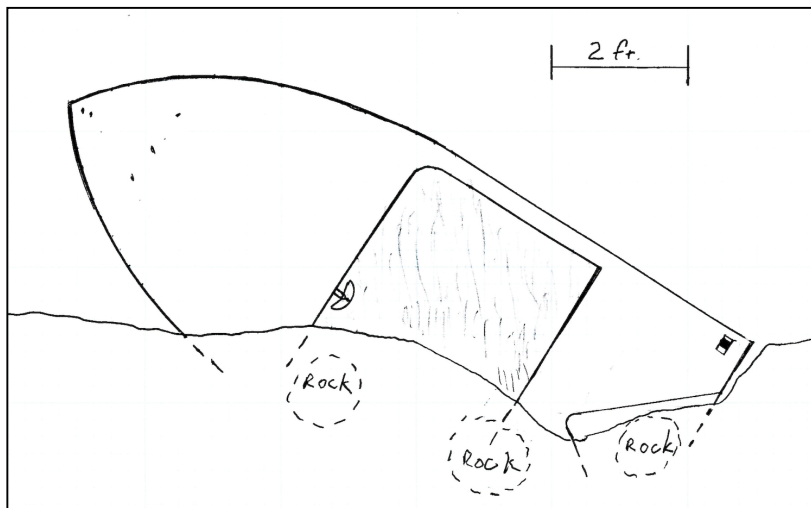




Above: The starboard bustle and chine of the wreck (Mark Slick).
Left: The wooden false keel (Kelly Nehowig).



Above: The red-painted wreck bottom with wooden stringers running fore and aft (Mark Slick).
Right: The partial bulwark at the aft end of the cockpit (Mark Slick).



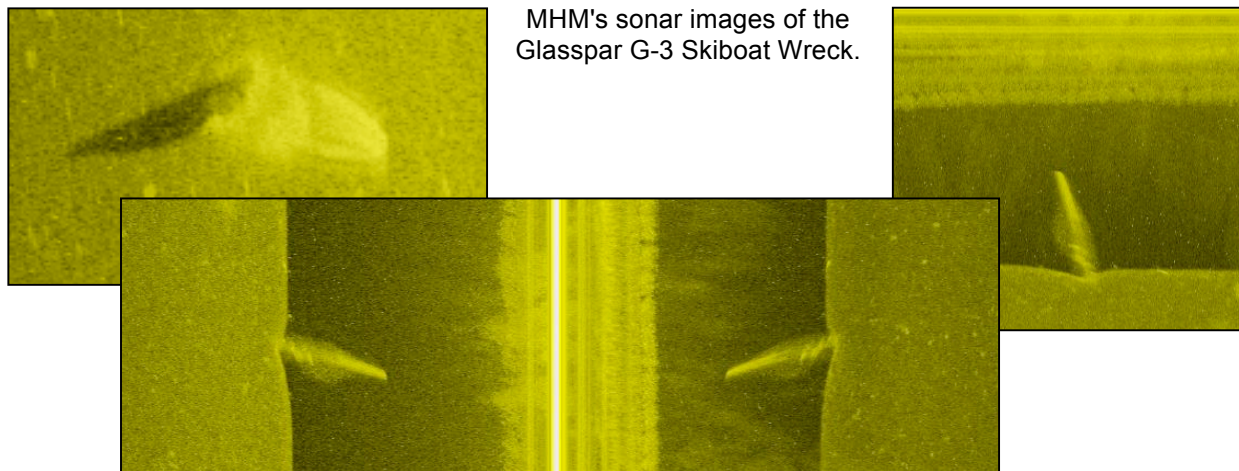
A sketch of the Fiberglass Hydroplane Wreck (Christopher Olson).

Glasspar G-3 Skiboat Wreck Site (Anomaly 18)

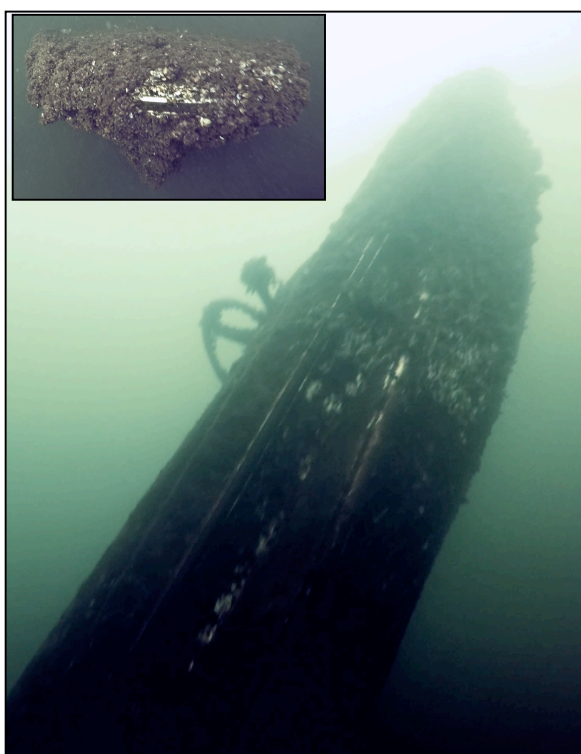
MHM recorded a sonar image of Anomaly 18 in August 2016 during the MSLS-1 Project and identified the Glasspar G-3 Skiboat Wreck in mid-August 2017. The hull of Anomaly 18 is 13.58 feet long, 73 inches in the beam with a 1.40-foot depth of hold, and it is white with possible blue details around its quarter tail fins. The bow is blunt and wide. The majority of the wreck is standing in the water column, weighted down at the transom by its Evinrude Starflight IV 75HP outboard motor. Additional buoyancy is provided by a fuel tank in the bow. The motor is connected to an Evinrude Selectric controller that is mounted on the starboard side front cockpit. Made of molded fiberglass, Anomaly 18 has a large foredeck with a metal cleat, air scoop, and a gas cap. There is a wire pushing through the deck at the bow where the missing navigation light was attached. The dashboard has a fuel gage, another dial, and the speedometer is hanging loose by its wiring. The ignition plate has the Evinrude logo embossed on it and the key is in the ignition. A warning light is also on the dash, with the word 'NO' on a light cover; MHM contends this light warns the driver if it is not safe to turn on the ignition. The white 2-spoked steering wheel has a faded red horn shroud with a unique emblem on it – a man holding a banner with the word '____MAN' on it, sitting behind a steering wheel.

Two bucket seats separate the front and rear cockpits and the inner hull aft is left open for skiers and gear – when they are in their proper place. In Anomaly 18, the bucket seats dislodged from the hull bottom and tipped over backwards and slid aft, hitting the transom during the wrecking process. Although the attributes on the stern cannot be seen, images of still-floating G-3 boats indicate they had trailer tie-down loops on the transom and a mast light inside the starboard motor well. The metal gas tank is attached to the hull underneath the foredeck and a fuel line with a bulb extends aft amidships next to the driver's seat. The Glasspar logo is located on the outer hull on both port and starboard next to the driver's seat amidships; this emblem is specific to the G-3. A Glasspar builder's plate is affixed to the port side inner hull just forward of the passenger's seat – unfortunately the serial number is illegible. Anomaly 18 was sold by Lucky Marine (on Excelsior Boulevard in downtown Hopkins) according to the boat dealer's plate on the port side dashboard to the left of the fuel gage. Her registration is MN 6816 BH, a number assigned in 1962; DNR records confirm the wreck's identity as a Glasspar constructed in 1962. Further, the last registration expiration date recorded for MN 6816 BH is December 1969 (John Nordby, personal communication, September 2017).² No registration validation stickers that can be discerned have survived on the hull. MHM also located a Budweiser beer can on the wreck that dates to 1968 (Dr. Mark Benbow, personal communication, October 2017, rustycans.com). Therefore, based on the records available, MHM contends the Glasspar G-3 Wreck sank while in motion prior between summer 1968 and autumn 1969, the date range covered by her last registration validation and the age of the beer can.³

²The existence of this historical information is unexpected since the majority Minnesota's boating records dating from 1959-1972 have been destroyed. Fortunately for Minnesota's maritime history and MHM, some records near the end of the destroyed sequence have seemingly survived.



MHM's sonar images of the Glasspar G-3 Skiboat Wreck.



Above: Anomaly 18. Inset: Bow (Mark Slick).



Above: The steering wheel of the Glasspar G-3 Wreck (Mark Slick). Right: The horn shroud with the banner holding man (MHM).



Right: The Evinrude Selectric Controller inside the starboard side hull (Mark Slick).



Left: The front cowling of the Evinrude 75 HP Starlite IV outboard motor (MHM).

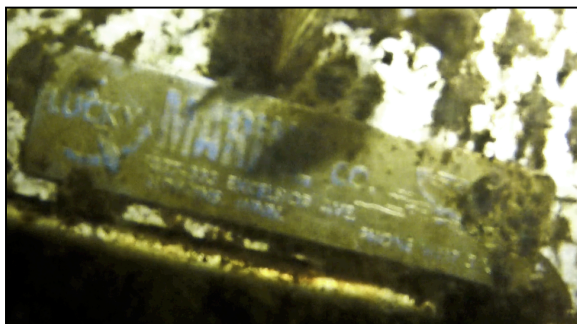




The side of the cowling of the Evinrude 75 HP Starflite IV outboard motor (Mark Slick).



One of the Glasspar G-3 logos on the outer hull (Ed Nelson).



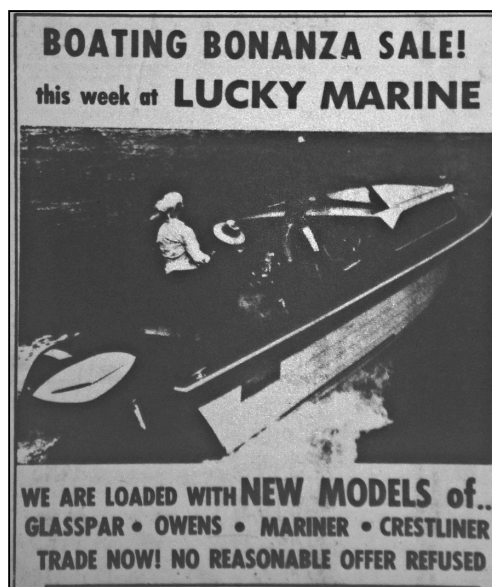
Above: A Lucky Marine dealer's plate attached to the port side dashboard of the wreck (MHM).

Left: Glasspar's builder's plate with the wreck's illegible serial number attached to the port side inner cockpit (Kelly Nehowig).



Above: Anomaly 18's registration number: MN 6816 BH (Mark Slick).

Right: A Lucky Marine ad featuring Glasspar boats and others. Note the Evinrude Starflite outboard motor (*Hennepin County Review* 1962).



William Tritt founded Glasspar Company in 1948 in Costa Mesa, CA, the name derived by the primary product manufactured by the company – glass spars. Glass spars were actually fiberglass spars and masts for sailboats. The first outboard utility-style fiberglass hulls – technically Anomaly 18 is a utility – were offered in 1951. Until 1954, Glasspar-manufactured fiberglass boats were sold and marketed through Sears under the Elgin brand. But, by the end of the 1950s, Glasspar produced 10,000 boats per year under its own brand, having utilized satellite factories around the US that made production profitable by cutting out high transportation costs; 20% of the fiberglass boats sold in the US were manufactured by Glasspar. The company offered a variety of fishing and family boats as well as cruisers, and the G-3 Skiboat was introduced to the line in 1959. The 1960 promotional catalog described the boat: “Sleek, fiber glass speedboat designed especially for water skiing. Racing hull, jet-like get up and go. Up to 52 mph in safety and comfort” (Glasspar Company 1960; Hunn 2006, 78-80).

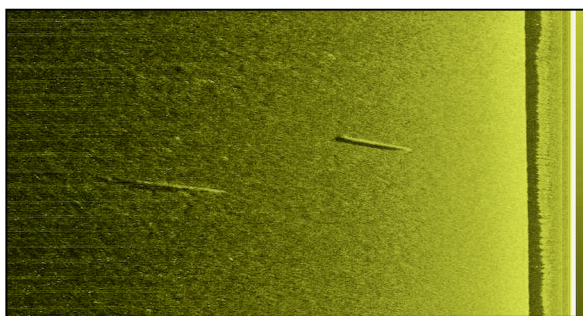
Few design changes characterized G-3 construction, but the different model years can basically be discerned from one another. The 1959-1961 models were referred to as the ‘Center Deck’ type with a front bench seat and closed aft cockpit. The 1962-1963 models were the ‘Open Deck’ type with bucket seats forward and no seats aft. The 1965-1967 models also had the ‘Open Deck’ design, but the bucket seats were replaced with back-to-back seats for 4 people; the G-3 was not produced in 1964. Larson Boat Company of Little Falls bought Glasspar in 1966 and manufactured the larger G-3 Catalina from 1969-1975 (Beisel 1990; Hunn 2006, 80). Further, the Glasspar logo design and placement on the boats was changed from time to time, and like the Center or Open Deck designs and seat configurations, are diagnostic attributes. Anomaly 18’s attributes agree with the DNR information supplied to MHM. The 1962 Glasspar G-3 Skiboat Wreck cannot be categorized as an archaeological site at this time, but she is a State and Federally protected maritime historical resource.



Two 1962 Glasspar G-3 Skiboat Open Deck models. The passenger seat is flipped backwards to view the skier (fiberglassclassics.com).

Metal Pontoon Sites (Anomalies A6 and A7)

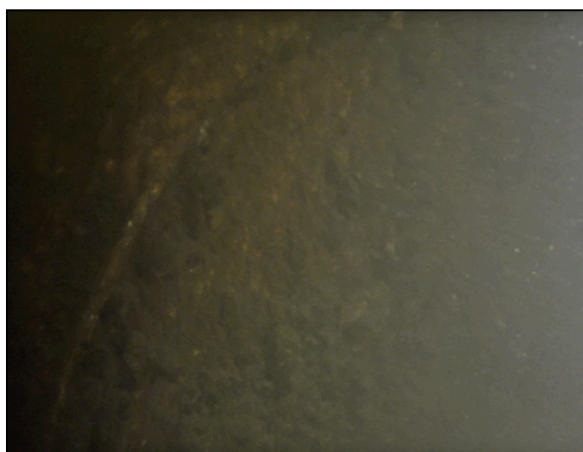
MHM recorded sonar images of the metal Pontoon Sites (Anomalies 6 and 7) during the MSLS-1 Project in August 2016 and in mid-August 2017 identified these two sites that lie 65 feet from each other. Once Anomaly 6 was identified, the assumption before diving on Anomaly 7 was that the pontoons would be identical in design due to their proximity to each other (they are). The pontoons are 18.00 feet long, 1.70 feet in diameter, and round in cross-section. The bow ends are pointed and the stern ends are rounded with handle-like appendages for trailer tie-downs. Both pontoons have remnants of the brackets that attached them to their former pontoon boat platform. The central bodies of the cylinders have sections that are rusted away so there are gaping holes in each pontoon. Anomalies 6 and 7 are classified as historical cultural resources and are protected under the jurisdiction of the DNR.



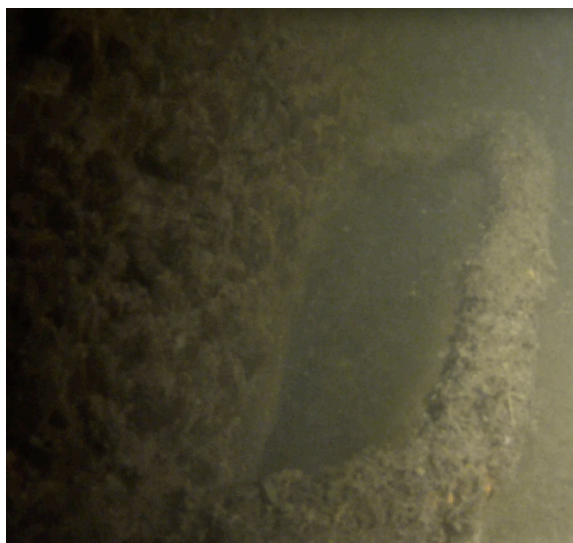
MHM's sonar image of Anmalies 6 and 7, only 65 feet from each other.



The pointed bow end of Anomaly 6 with the trailer tie-down handle (MHM).



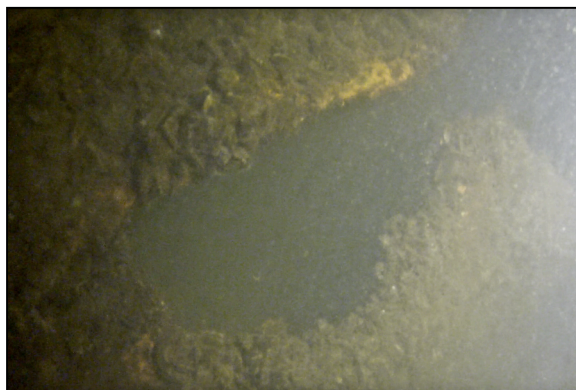
The stern end of Anomaly 6 is round like a barrel (MHM).



The handle attached to the stern end of Anomaly 6 (MHM).



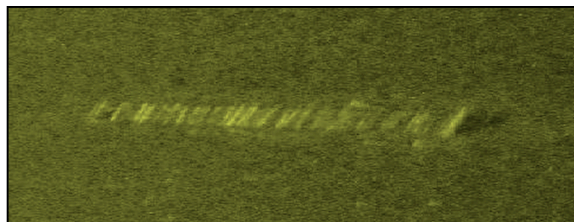
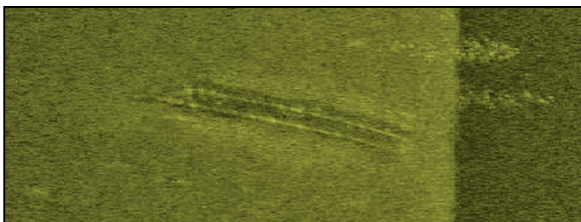
An attachment point for Anomaly 6 and its pontoon platform (MHM).



A section of a large hole in Anomaly 6 (MHM).

Wooden Dock (Anomaly 12)

MHM recorded a sonar image of Anomaly 12 in August 2016 and identified it as a wooden dock in August 2017. The dock is 16.60 feet long and 4.10 feet wide with surviving metal hardware that would attach it to another section; it was originally L-shaped. MHM contends the dock loosened from another dock section or the shoreline during a period of high wind or water, or a similar event. The dock is a cultural resource that is protected under the jurisdiction of the DNR.



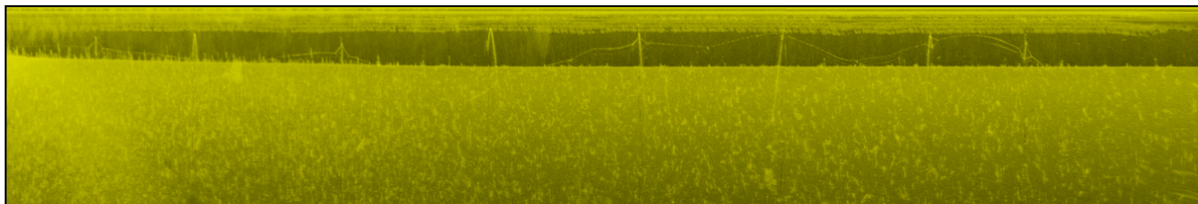
MHM's sonar images of Anomaly 12. The difference in appearance stems from direction, speed, and beam length.



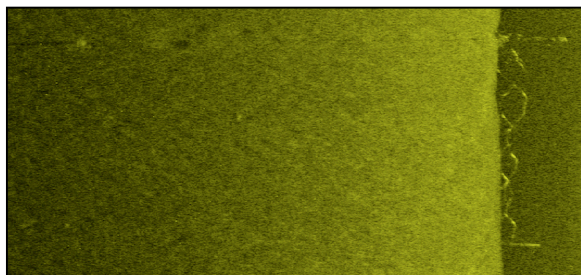
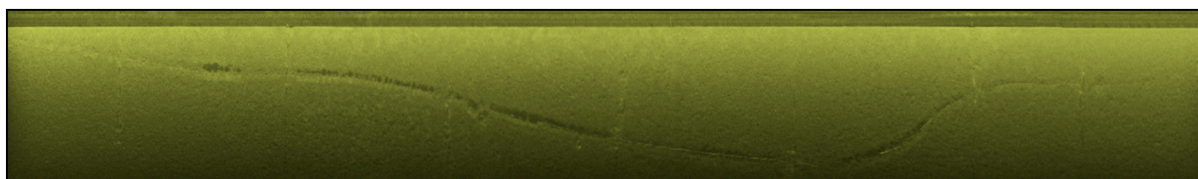
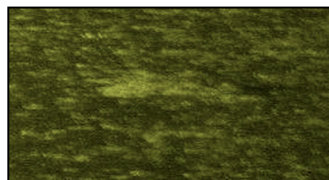
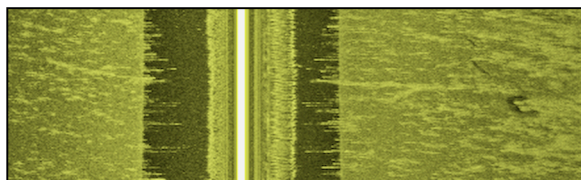
Some details of the dock (Mark Slick).

Submerged Water Ski Courses (Anomalies 13, 16, 21, 36, 45)

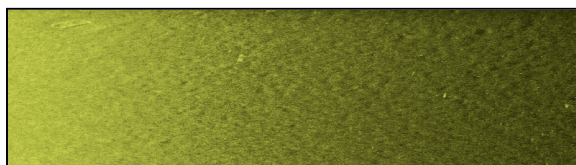
MHM recorded sonar images of Anomalies 13, 16, 21, 36, and 45 in August 2016 and identified them in August 2017. MHM thought Anomalies 13 and 21 were submerged poke nets. Diving on Anomaly 21, MHM determined that Anomalies 13 and 21 are submerged water ski courses, and Anomalies 16, 21, and 45 are components of them. Anomaly 21 is comprised of a series of 2 vertical lines weighed down on the lake bottom attached to an 8.00-foot long PVC pipe that is suspended horizontally in the water column. Two air bladders are attached to both ends of the PVC pipe and an air pressure line is attached to valves at both bladders. The air line has a connector to accept an air source (a SCUBA tank or other device) and once turned on, the air would be transferred down the air lines and into the bladders, thus raising the 2 water ski buoys attached to the bladders. The PVC tube would remain underwater, about 8 feet below the surface, when the course was raised and used by a boat and skier. The air line is attached to a long line that extends the entire length of the water ski course, leading from one PVC/air bladder/ski buoy set to another – for 800 feet. At both ends, the long anchor line is held down by 2 Menards buckets filled with concrete (Anomalies 16 and 45). Anomaly 13 is similar to Anomaly 21 except it is in shallower water and it is lying on the lake bottom. Anomaly 36 is part of the anchor system – and Anomaly 13 is 830 feet long.



MHM's sonar images of Anomaly 21 (above), Anomaly 16 (below left), Anomaly 45 (below right) .

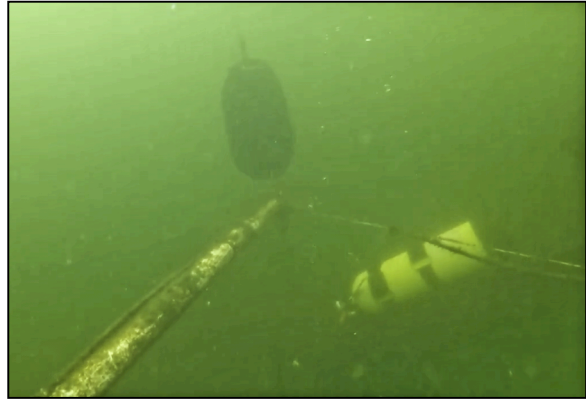


MHM's sonar images of Anomaly 13 (above and left, note the jumble of lines), and Anomaly 36 (below) at the end of Anomaly 13.





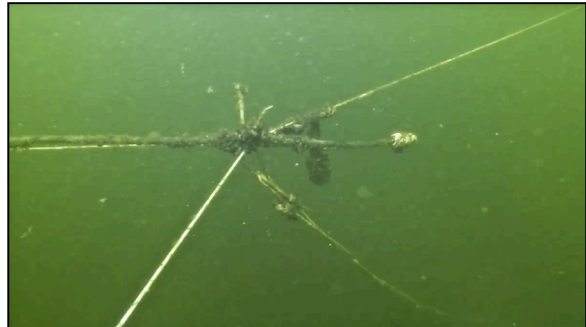
One of the PVC pipes anchored on the bottom with 2 air bladders on each end (Mark Slick).



A bladder attached to the end of a PVC tube (Ed Nelson).



One of the bladders; a water ski buoy is attached to the bladder. The buoy stays about 8 feet underwater until the bladders are filled with air and the PVC tube rises through the water column, stopped about 8 feet below the lake surface (Ed Nelson).



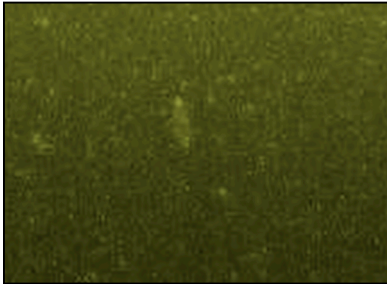
A junction of an air line and stabilizing lines. If the water ski course was to be raised, an air source like a SCUBA tank would be attached to the quick release connector seen above (Ed Nelson).



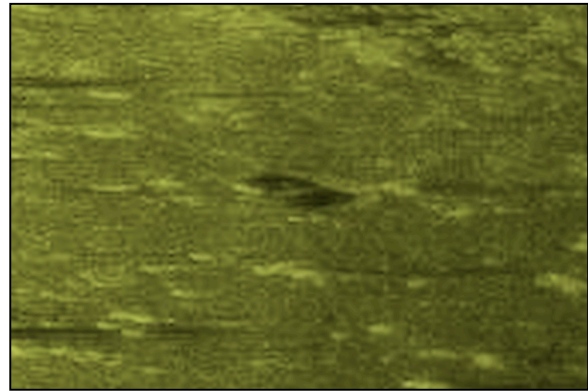
Anomaly 45, one of the concrete bucket anchors (Mark Slick).

Anomalies 3, 51, 52

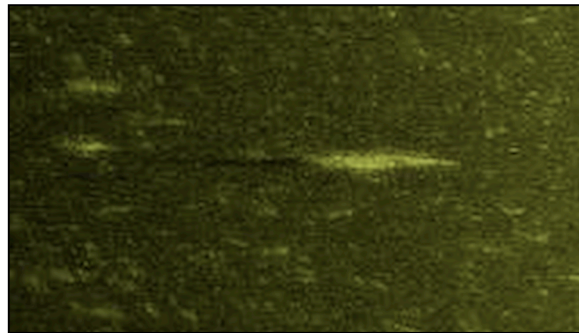
Sonar images of Anomalies 3, 51, and 52 during the MSLS-1 Project in August 2016. These 3 anomalies were identified during the MSLNA-1 Project as false targets. False targets are most often rocks, bottom contours that produce shadowed acoustical signatures, and weed clumps. In the case of A3, MHM surmised it might be a small wreck, but it was a lake bottom contour. Anomaly 51's acoustical signature suggested it was an object similar to Anomaly 16. Instead, the anomaly is a divot in the lake bottom. Lastly, because A52 had a significant acoustical shadow, MHM surmised it might be a cultural resource. The anomaly was identified as vegetation.



Anomaly 3



Anomaly 51



Anomaly 52

Conclusion

MHM identified the only 3 recognized wrecks on the bottom of Prior Lake during the MSLNA-1 Project. Anomaly 10, the Wooden Outboard Wreck (21-SC-108), represents waterborne recreation – especially fishing - lake travel, and likely local Prior Lake boat-building expertise. Several small wooden wrecks identified in Lake Minnetonka are comparable to the Wooden Outboard Wreck, indicating the general size, design, and construction of small wooden outboard motor boats in Minnesota was relatively uniform. The Fiberglass Hydroplane Wreck (21-SC-109) is the only known submerged cultural resource of this type in Minnesota. Although there are 2 wooden hydroplanes (identified in 2017) and a fiberglass flat-bottomed drag boat (identified in 2015) in Lake Minnetonka, the design of these other 3 racing boats do not parallel 21-SC-109. Next, the Glasspar G-3 Skiboat Wreck (Anomaly 18), while not technically a racing boat, is associated with hydroplanes since it was designed for speed. Unlike hydroplanes and drag boats, however, Anomaly 18 was also designed to take fast turns in addition to going at top speed on a straightaway. Anomaly 18 is the first Glasspar wreck MHM has identified on the bottom of any Minnesota lake. The maritime sites identified in Prior Lake during the MSLNA-1 Project, the Pontoons (Anomalies 6 and 7) and the Dock (Anomaly 12), are objects that are expected to be found on the bottom of Minnesota's lakes simply because of their nature; to date 4 individual pontoons and 1 dock have also been identified on the bottom of Lake Minnetonka. Lastly, unfortunately the 2 Submerged Water Ski Courses and their associated infrastructure (Anomalies 13, 16, 21, 36, 45) are not poke nets as initially thought. MHM questions the wisdom of constructing these structures in a public lake.

The MSLNA-1 Project produced interesting and significant results investigating 29 anomalies in 3 lakes in 3 counties. MHM identified 11 wrecks, 3 maritime sites or objects, 2 'other' sites, and 1 'other' object in Lake Waconia, Lake Pulaski, and Prior Lake. Of the 11 wrecks, MHM acquired Minnesota Archaeological Site Numbers for 3 of them; 2 in Prior Lake and 1 in Lake Pulaski. Two of these wrecks are small wooden boats, similar in construction and design to 15 wrecks identified by MHM in Lake Minnetonka.⁴ As more data is accumulated and additional nautical archaeological sites identified and analyzed, to date submerged cultural resources from 9 suburban lakes⁵ can be compared and contrasted. Attributes noted in certain wrecks may be indicative of a particular boat builder or at least assigned to a particular type or time period. Further, to date MHM has identified 4 pontoon boat wrecks in 3 lakes; of these sites, 3 of them are capsized (Lake Pulaski, Lake Minnetonka) and 1 is upright (Lake Waconia).

The wrecking processes responsible for the creation of Minnesota's submerged cultural resources have produced a variety of underwater sites. Identifying, comparing, and associating these new sites in Lake Waconia, Lake Pulaski, and Prior Lake with known sites increases our understanding of the historical context within which these cultural resources operated or were exploited by Minnesotans. Future studies will greatly

⁴See MHM's *Lake Minnetonka Nautical Archaeology Project 1-7 Reports* (2012-2017) for more information.

⁵To date, MHM has completed sonar surveys and nautical archaeological projects in Lake Elmo, Lake Johanna, Lake Minnetonka, Lake Pulaski, Lake Sylvia, Lake Waconia, Medicine Lake, Prior Lake, and White Bear Lake.

enhance our shared maritime history through the recognition of submerged cultural resources and the stories behind their construction and disposition on the bottoms of these lakes studied to date. The diversity of nautical, maritime, and underwater sites so far identified by MHM in Minnesota's lakes are tangible examples of the rich maritime history of the area. Through research, diving on wrecks and anomalies to collect pertinent data, and ensuring that the collected information is accessible by the public, MHM will continue to investigate Minnesota's submerged cultural resources into the future. MHM continues to re-examine recorded sonar footage from completed remote sensing surveys. Targeted re-scanning has occurred in several lakes using knowledge gained from the comparison of anomalies that have proven to be wrecks or other submerged cultural resources in past projects. With improved technology, future scanning projects will produce clearer data. The results of the MSLNA-1 Project summarized above is connected to all the work that came before⁶ and will come after its completion. At this point, watercraft located Minnesota's suburban lakes represent nearly 1,000 years of Minnesota's maritime history and nautical archaeology. In the historic period, the known wrecks represented in these lakes span over 140 years of local maritime culture. It is clear – even through this Phase 1 pre-disturbance nautical archaeological investigation – that the types of sites that exist in Minnesota's suburban lakes documented to date are diverse, archaeologically and historically significant, and worthy of great attention.

⁶See MHM's *Minnesota Suburban Lakes Survey Project Report* for more information.

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